

WHAT IS CLAIMED IS:

- 1 1. A method for improving a selection of a graphic user interface (GUI) icon
2 with a pointing device, comprising the steps of:
3 acquiring data corresponding to a motion of a pointing cursor on a display,
4 said motion of said pointing cursor corresponding to a movement pointing device
5 used to move said pointing cursor from a first source position to a first destination
6 position on said display;
7 generating a set of motion vectors corresponding to said motion of said
8 pointing cursor from said first source position to said first destination position; and
9 storing said set of motion vectors and said destination position referenced to
10 said first source position.
- 1 2. The method of claim 1 further comprising the steps of:
2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;
5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) highlighting said destination point icon;

1 3. The method of claim 2, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 4. The method of claim 1, further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 5. The method of claim 4, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 6. The method of claim 1, wherein said display corresponds to a graphic user
2 interface (GUI).

1 7. The method of claim 1, wherein said first source position is a position of a
2 predetermined source point icon.

1 8. The method of claim 1, wherein said first destination position is a position of
2 a predetermined destination point icon.

1 9. The method of claim 1, wherein another of said motion vectors is generated
2 each time said motion starts from a motion stop.

1 10. The method of claim 1, wherein said motion vector comprises parameters
2 defining a pointing cursor average velocity, starting position, stopping position, and
3 motion direction.

1 11. The method of claim 6, wherein said set of motion vectors are stored in
response to actuating said destination point icon.

1 12. The method of claim 1, wherein said set of motion vectors are associated with
2 said first source position and source positions proximate to said first source position,
3 and said first destination position and destination positions proximate to said second
4 position.

1 13. The method of claim 2, wherein said second source position corresponds to a
2 position of a source point icon.

1 14. The method of claim 2, wherein said pointing cursor locks to said destination
2 point icon until said destination point icon is actuated by a user.

1 15. The method of claim 2, wherein said pointing cursor locks to said destination
2 point icon until a motion vector indicates a more likely destination point icon.

1 16. The method of claim 3, wherein said pointing cursor motion proceeds from
2 said first source position to said destination point icon corresponding to an ideal
3 motion vector, said ideal motion vector motion changed only if a new destination
4 point icon is determined.

00000000000000000000000000000000

11-00000

100

in

10

8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) highlighting said destination point icon;

1 19. The computer program product of claim 18, further comprising the step of:
2 repeating said steps 1) through 3) until said highlighted destination point icon
3 is actuated by a user of said pointing device.

1 20. The computer program product of claim 17, further comprising the steps of:

2 1) generating, within an application program, a first motion vector for said
3 pointing cursor on said display as said pointing cursor moves from a second source
4 position in response to a motion of said pointing device;

5 2) predicting a destination point icon in response to a compare of said first
6 source position to a corresponding stored source position or a source position
7 proximate to said first source position, wherein said corresponding stored source
8 position which compares to said first source position also has stored said first motion
9 vector or a motion vector proximate to said first motion vector; and

10 3) modifying a motion of said pointing cursor to more nearly follow ideal
11 motion vectors from said first source position to said destination point icon.

1 21. The computer program product of claim 20, further comprising the step of:
2 repeating said steps 1) through 3) until said predicted destination point icon is
3 actuated by a user of said pointing device.

1 22. The computer program product of claim 17, wherein said display corresponds
2 to a graphic user interface (GUI).

1 23. The computer program product of claim 17, wherein said first source position
2 is a position of a predetermined source point icon.

1 24. The computer program product of claim 17, wherein said first destination
2 position is a position of a predetermined destination point icon.

1 25. The computer program product of claim 17, wherein another of said motion
2 vectors is generated each time said motion starts from a motion stop.

1 26. The computer program product of claim 17, wherein said motion vector
2 comprises parameters defining a pointing cursor average velocity, starting position,
3 stopping position, and motion direction.

1 27. The computer program product of claim 24, wherein said set of motion
2 vectors are stored in response to actuating said predetermined destination point icon.

1 28. The computer program product of claim 17, wherein said set of motion
2 vectors are associated with said first source position and source positions proximate
3 to said first source position, and said first destination position and destination
4 positions proximate to said second position.

1 29. The computer program product of claim 18, wherein said second source
2 position corresponds to a position of a source point icon.

1 30. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until said destination point icon is actuated by a
3 user.

1 31. The computer program product of claim 18, wherein said pointing cursor
2 locks to said destination point icon until a motion vector indicates a more likely
3 destination point icon.

0920010007US1

1 32. The computer program product of claim 17, wherein said pointing cursor
2 motion proceeds from said first source position to said destination point icon
3 corresponding to an ideal motion vector, said ideal motion vector motion changed
4 only if a new destination point icon is determined.

092471-042601
F092471-042601

1 33. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry for acquiring data corresponding to a motion of a pointing cursor on a
9 display, said pointing cursor corresponding to a pointing device used to move said
10 pointing cursor from a first source position to a first destination position on said
11 display;
12 circuitry for generating a set of motion vectors corresponding to said motion
13 of said pointing cursor from said first source position to said first destination position,
14 said motion vectors having a vector source point, a magnitude and direction; and
15 circuitry for storing said set of motion vectors and said destination position
16 referenced to said first source position.

09842471-042601

1 34. The data processing system of claim 33, further comprising:
2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;
5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and
9 circuitry for highlighting said destination point icon.

1 35. The data processing system of claim 33, further comprising:
2 circuitry for generating, within an application program, a first motion vector
3 for said pointing cursor on said display as said pointing cursor moves from a second
4 source position in response to a motion of said pointing device;
5 circuitry for predicting a destination point icon in response to a compare of
6 said first source position with a corresponding stored source position or a stored
7 proximate source position having a stored corresponding said first motion vector or a
8 proximate motion vector; and
9 circuitry for modifying a motion of said pointing cursor to follow ideal motion
10 vectors from said first source position to said destination point icon.

1 36. The data processing system of claim 33, wherein said display corresponds to a
2 graphic user interface (GUI).

1 37. The data processing system of claim 33, wherein said first source position is a
2 position of a predetermined source point icon.

1 38. The data processing system of claim 33, wherein said first destination position
2 is a position of a predetermined destination point icon.

1 39. The data processing system of claim 33, wherein another of said motion
2 vectors is generated each time said motion starts from a motion stop.

1 40. The data processing system of claim 33, wherein said motion vector comprises
2 parameters defining a pointing cursor average velocity, starting position, stopping
3 position, and motion direction.

1 41. The data processing system of claim 34, wherein said set of motion vectors are
stored in response to actuating said destination point icon.

FOR OFFICIAL USE ONLY

1 42. The data processing system of claim 33, wherein said set of motion vectors are
2 associated with said first source position and source positions proximate to said first
3 source position, and said first destination position and destination positions proximate
4 to said second position.

1 43. The data processing system of claim 34, wherein said second source position
2 corresponds to a position of a source point icon.

1 44. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until said destination point icon is actuated by a user.

1 45. The data processing system of claim 34, wherein said pointing cursor locks to
2 said destination point icon until a motion vector indicates a more likely destination
3 point icon.

1 46. The data processing system of claim 35, wherein said pointing cursor motion
2 proceeds from said first source position to said destination point icon corresponding
3 to an ideal motion vector, said ideal motion vector motion changed only if a new
4 destination point icon is determined.

1 47. A method for improving a selection of a graphic user interface (GUI) icon
2 with a pointing device, comprising the step of:

3 predicting, within an application program, a destination point icon by
4 comparing a motion vector imparted by a user to a pointing cursor to a previously
5 acquired motion vector acquired from said user moving said pointing cursor.

1 48. The method of claim 47, further comprising the step of:

2 highlighting said destination point icon in response to said prediction step
3 until said predicted destination point icon is actuated by said user

1 49. The method of claim 47, further comprising the step of:

2 modifying a motion of said pointing cursor as a user moves a pointing device
3 corresponding to said pointing cursor in an attempt to move said pointing cursor from
4 a source point icon to said predicted destination point icon.

09942471-042601
F09240 "F 2424850

1 50. A computer program product, said computer program product embodied in a
2 machine readable medium, including programming for a processor, said computer
3 program comprising a program of instructions for performing the program step of:
4 predicting, within an application program, a destination point icon by
5 comparing a motion vector imparted by a user to a pointing cursor to a previously
6 acquired motion vector acquired from said user moving said pointing cursor.

1 51. The computer program product of claim 50, further comprising the step of:
2 highlighting said destination point icon in response to said prediction step
3 until said predicted destination point icon is actuated by said user

1 52. The computer program product of claim 50, further comprising the step of:
2 modifying a motion of said pointing cursor as a user moves a pointing device
3 corresponding to said pointing cursor in an attempt to move said pointing cursor from
4 a source point icon to said predicted destination point icon.

- 1 53. A data processing system comprising:
2 a central processing unit (CPU);
3 a random access memory (RAM);
4 a communications adapter coupled to a communication network;
5 an I/O adapter
6 a bus system coupling said CPU to said PROM, said communications adapter,
7 said I/O adapter, and said RAM, wherein said CPU comprises:
8 circuitry operable to predict, within an application program, a destination
9 point icon by comparing a motion vector imparted by a user to a pointing cursor to a
10 previously acquired motion vector acquired from said user moving said pointing
11 cursor.
- 1 54. The data processing system of claim 53, further comprising:
2 circuitry operable to highlight said predicted destination point icon until said
3 predicted destination point icon is actuated by said user

1 55. The data processing system of claim 53, further comprising:
2 circuitry operable to modify a motion of said pointing cursor as a user moves a
3 pointing device corresponding to said pointing cursor in an attempt to move said
4 pointing cursor from a source point icon to said predicted destination point icon.

09042471.042601